UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,178	01/25/2002	John Christian Hermansen	20837-007401	8444

			EXAMINER
26171	7590	05/27/2005	HWANG, JOON H

FISH & RICHARDSON P.C.
P.O. BOX 1022
MINNEAPOLIS, MN 55440-1022

ART UNIT	PAPER NUMBER
2162	

DATE MAILED: 05/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/055,178	HERMANSEN ET AL.
	Examiner	Art Unit	
	Joon H. Hwang	2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>21 December 2004</u> .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>32-94</u> is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>32-37,41-54,56-58,60-83 and 87-94</u> is/are rejected.

7)☒ Claim(s) <u>38-40,55,59 and 84-86</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)   4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .   6) ☐ Other: .

DETAILED ACTION

1.   The applicants request for reconsideration in the amendment received on

12/21/2004.

The pending claims are 32-94.

Response to Arguments

2.   Applicant's arguments with respect to claims 32 and 78 have been considered

but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

4.   Claims 32 and 78 are rejected under 35 U.S.C. 102(b) as being unpatentable

over Wheatley et al. (U.S. Patent No. 5,212,730).

With respect to claim 32, Wheatley teaches accessing an input name (lines 14-

22 in col. 3). Wheatley teaches determining multiple phonetic representations for a

portion of the input name, each of the multiple phonetic representations being for a

different pronunciation of the input name (lines 14-22 in col. 3, lines 26-36 in col. 4, and

line 44 in col. 8 thru line 8 in col. 9). Wheatley teaches comparing each of the multiple

phonetic representations of the portion of the input name to a phonetic representation of

a portion of the known name (lines 44-68 in col. 4). Wheatley teaches providing an

indication of whether the input name matches the known name based on the comparing

(lines 58-68 in col. 4 and lines 10-50 in col. 9).

The limitations of claim 78 are rejected in the analysis of claim 32 above, and the

claim is rejected on that basis.

Claim Rejections - 35 USC § 103

5.   The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

6.   Claims 32-34, 42-48, 51-52, 76-80, and 88-89 are rejected under 35 U.S.C.

103(a) as being unpatentable over Oshika et al. ("Improved Retrieval Of Foreign Names

From Large Database", 1988, IEEE, pages 480-487) in view of Wheatley et al. (U.S.

Patent No. 5,212,730).

With respect to claim 32, Oshika teaches accessing an input name (section 1.0

on page 480 and section 2.0 on page 480-481). Oshika teaches determining multiple

phonetic representations for a portion of the input name (section 1.0 on page 480,

section 2.0 on page 480-481, section 3.0 on page 481, section 5.0 on pages 485-486,

and section 6.0 on page 486). Oshika teaches comparing each of the multiple phonetic

representations of the portion of the input name to a phonetic representation of a portion

of the known name (section 1.0 on page 480, section 2.0 on page 480-481, section 3.0

on page 481, section 5.0 on pages 485-486, and section 6.0 on page 486). Oshika

teaches providing an indication of whether the input name matches the known name

based on the comparing (section 1.0 on page 480, section 2.0 on page 480-481, section

3.0 on page 481, section 5.0 on pages 485-486, and section 6.0 on page 486). Oshika does not explicitly disclose each of the multiple phonetic representations being for a different pronunciation of the input name. However, Wheatley teaches determining multiple phonetic representations for a portion of the input name, each of the multiple phonetic representations being for a different pronunciation of the input name (lines 14-22 in col. 3, lines 26-36 in col. 4, and line 44 in col. 8 thru line 8 in col. 9) in order to match names effectively. Therefore, based on Oshika in view of Wheatley, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Wheatley to the system of Oshika in order to match names effectively.

With respect to claim 33, Oshika teaches classifying the input name as belonging to a particular culture (section 1.0 on page 480, section 2.0 on page 480-481, section 3.0 on page 481, and section 6.0 on page 486). Oshika teaches selecting a rule based on the classifying of the input name (section 1.0 on page 480, section 2.0 on page 480-481, section 3.0 on page 481, section 4.0 on page 485, and section 6.0 on page 486). Oshika teaches applying the rule in determining the multiple phonetic representations for the portion of the input name (section 1.0 on page 480, section 2.0 on page 480-481, section 3.0 on page 481, section 4.0 on page 485, and section 6.0 on page 486).

With respect to claim 34, Oshika teaches classifying the input name as belonging to a particular culture (section 1.0 on page 480, section 2.0 on page 480-481, section 3.0 on page 481, and section 6.0 on page 486). Oshika teaches selecting a multiple rules based on the classifying of the input name (section 1.0 on page 480, section 2.0

on page 480-481, section 3.0 on page 481, section 4.0 on page 485, and section 6.0 on page 486). Oshika teaches applying the multiple rules in determining the multiple phonetic representations for the portion of the input name (section 1.0 on page 480, section 2.0 on page 480-481, section 3.0 on page 481, section 4.0 on page 485, and section 6.0 on page 486).

With respect to claim 42, Oshika teaches comparing each of the multiple phonetic representations of the portion of the input name to a second phonetic representation of the portion of the known name (section 1.0 on page 480, section 2.0 on page 480-481, section 3.0 on page 481, section 4.0 on page 485, and section 6.0 on page 486).

With respect to claim 43, Oshika teaches accessing a character representation of the input name (section 1.0 on page 480, section 2.0 on page 480-481, and section 3.0 on page 481),

With respect to claim 44, Oshika teaches generating name variants using a string rewriting rules based on pronunciations (section 1.0 on page 480).

With respect to claim 45, Oshika teaches the character representation of the input name reflects a spelling from a specific culture and determining multiple phonetic representations comprises using a rule for determining phonetic representations, the rule being based on the specific culture (section 1.0 on page 480, section 2.0 on page 480-481, section 3.0 on page 481, section 4.0 on page 485, and section 6.0 on page 486).

With respect to claim 46, Oshika teaches the character representation of the input name reflects a spelling from a specific culture, the input name belongs to another culture that is different from the specific culture, and determining multiple phonetic representations comprises using a rule for determining phonetic representations, the rule being based on the specific culture (section 1.0 on page 480, section 2.0 on page 480-481, section 3.0 on page 481, section 4.0 on page 485, and section 6.0 on page 486).

With respect to claim 47, Oshika teaches the character representation of the input name reflects a spelling from a specific culture, the input name belongs to another culture that is different from the specific culture, and determining multiple phonetic representations comprises using a rule for determining phonetic representations, the rule being based on the other culture (section 1.0 on page 480, section 2.0 on page 480-481, section 3.0 on page 481, section 4.0 on page 485, and section 6.0 on page 486).

With respect to claim 48, Oshika teaches the character representation of the input name reflects a spelling from a specific culture, the input name belongs to the specific culture, and determining multiple phonetic representations comprises using a rule for determining phonetic representations, the rule being based on the specific culture (section 1.0 on page 480, section 2.0 on page 480-481, section 3.0 on page 481, section 4.0 on page 485, and section 6.0 on page 486).

With respect to claim 51, Oshika teaches comparing, for at least one of the multiple phonetic representations of the portion of the input name, corresponding parts

of the at least one phonetic representation of the portion of the input name and the

phonetic representation of the portion of the known name (section 1.0 on page 480,

section 2.0 on page 480-481, section 3.0 on page 481, section 4.0 on page 485, and

section 6.0 on page 486).

With respect to claim 52, Oshika teaches parts that correspond at a syntactic

level (section 1.0 on page 480, section 2.0 on page 480-481, section 3.0 on page 481,

and section 4.0 on page 485).

With respect to claims 76-77, Oshika teaches accessing a portion of a complete

name or the entire input name (section 1.0 on page 480, section 2.0 on page 480-481,

section 3.0 on page 481, section 4.0 on page 485, and section 6.0 on page 486).

The limitations of claims 78-80 are rejected in the analysis of claims 32-34

above, and these claims are rejected on that basis.

The limitations of claim 88 are rejected in the analysis of claim 42 above, and the

claim is rejected on that basis.

The limitations of claim 89 are rejected in the analysis of claim 51 above, and the

claim is rejected on that basis.

7.   Claims 35-37, 41, 49-50, 53-54, 57-58, 60-75, 81-83, 87, and 90-94 are rejected

under 35 U.S.C. 103(a) as being unpatentable over Oshika et al. ("Improved Retrieval

Of Foreign Names From Large Database", 1988, IEEE, pages 480-487) in view of

Wheatley et al. (U.S. Patent No. 5,212,730), and further in view of Hermansen

("Automatic Name Searching in Large Data Bases of International Names," 1985).

With respect to claims 35 and 37, Oshika and Wheatley do not explicitly disclose determining articulatory similarity between at least one of the multiple phonetic representations of the portion of the input name and the phonetic representation of the portion of the known name. However, Hermansen teaches generating name variants based on phonetic, phonetic equivalence or phonic coding, which try to combine similar sounding consonant teaching articulatory (section 2.5 on page 23-24, section 2.5.2 on pages 28-30, and chapter 4 on pages 68-83). Hermansen also teaches providing an indication of similarity between the input name and the known name, wherein the input name is the variant based on the phonetic representation (section 2.1 on pages 15-16, section 3.2 on page 46-50, section 3.3 on pages 52-55, and section 3.4 on pages 55-59). Thus, these teach articulatory similarity. Hermansen further teaches determining articulatory similarity based on a culture-specific rule (chapter 2 on pages 14-41 and chapter 4 on pages 68-83). Therefore, based on Oshika in view of Wheatley, and further in view of Hermansen, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teachings of Hermansen to the system of Oshika for articulatory similarity in order to measure a likelihood of a name matching.

With respect to claim 36, Oshika and Wheatley do not explicitly disclose . determining articulatory similarity. However, Hermansen teaches identifying an articulatory variation between one or more of the multiple phonetic representations of the portion of the input name and the phonetic representation of the portion of the known name, classifying the articulatory variation as likely or unlikely, and wherein

determining articulatory similarity comprises attributing less significance to the

articulatory variation, so as to indicate greater articulatory similarity, if the articulatory

variation is likely than if the articulatory variation is unlikely (chapter 2 on pages 14-41,

chapter 3 on pages 42-67, chapter 4 on pages 68-83, chapter 5 on pages 84-110, and

chapter 6 on pages 111-137). Therefore, based on Oshika in view of Wheatley, and

further in view of Hermansen, it would have been obvious to one having ordinary skill in

the art at the time the invention was made to utilize the teachings of Hermansen to the

system of Oshika for articulatory similarity in order to search and measure a likelihood

of a name matching effectively.

With respect to claim 41, Oshika teaches name variants in phonetic

representations (section 1.0 on page 480, section 2.0 on page 480-481, section 3.0 on

page 481, section 4.0 on page 485, and section 6.0 on page 486). Oshika and

Wheatley do not explicitly disclose phonetic representation based on an IPA. However,

Hermansen teaches determining multiple phonetic representations comprises

determining multiple representation that are each based on an IPA (section 4.1 on

pages 68-71) for another way of a name transcription. Therefore, based on Oshika in

view of Wheatley, and further in view of Hermansen, it would have been obvious to one

having ordinary skill in the art at the time the invention was made to utilize the teaching

of Hermansen to the system of Oshika for an IPA in order to have another way of a

name transcription.

With respect to claims 49-50, Oshika and Wheatley do not explicitly disclose

providing an indication that the input name exactly or not exactly matches the known

name. However, Hermansen teaches providing an indication of similarity between the

input name and the known name (section 2.1 on pages 15-16, section 3.2 on page 46-

50, section 3.3 on pages 52-55, and section 3.4 on pages 55-59). Therefore, based on

Oshika in view of Wheatley, and further in view of Hermansen, it would have been

obvious to one having ordinary skill in the art at the time the invention was made to

utilize the teachings of Hermansen to the system of Oshika for an indication of a

similarity between the input name and the known name in order to measure a likelihood

of a name matching.

With respect to claims 53-54, Oshika and Wheatley do not explicitly disclose

parts that correspond at a syllabic level. However, Hermansen teaches parts that

correspond at a syllabic level including a first part that relates to a left-most syllable of

the portion of the input name and a second part that relates to a left-most syllable of the

portion of the known name (chapter 4 on pages 68-83 and chapter 6 on pages 111-137)

for an effective name searching. Therefore, based on Oshika in view of Wheatley, and

further in view of Hermansen, it would have been obvious to one having ordinary skill in

the art at the time the invention was made to utilize the teaching of Hermansen to the

system of Oshika for syllabic level of parts in order to search and match names

effectively.

With respect to claims 57-58, Oshika and Wheatley do not explicitly disclose

parts that correspond at a morphologic level and at a phonologic level. However,

Hermansen teaches parts that correspond at a morphologic level and at a phonologic

level (chapter 2 on pages 14-41, chapter 4 on pages 68-83, and chapter 6 on pages

111-137) for an effective name searching. Therefore, based on Oshika in view of Wheatley, and further in view of Hermansen, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Hermansen to the system of Oshika for a morphologic and a phonologic level of parts in order to search and match names effectively.

With respect to claim 60, Oshika and Wheatley do not explicitly disclose comparing sonority level. However, Hermansen teaches generating name variants based on phonetic, phonetic equivalence or phonic coding, which try to combine similar sounding consonant teaching sonority (section 2.5 on page 23-24, section 2.5.2 on pages 28-30, and chapter 4 on pages 68-83). Hermansen also teaches providing an indication of similarity between the input name and the known name, wherein the input name is the variant based on the phonetic representation (section 2.1 on pages 15-16, section 3.2 on page 46-50, section 3.3 on pages 52-55, and section 3.4 on pages 55-59). Thus, these teach a sonority level comparing. Therefore, based on Oshika in view of Wheatley, and further in view of Hermansen, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teachings of Hermansen to the system of Oshika for a sonority level comparing in order to search and measure a likelihood of a name matching effectively.

With respect to claims 61-63, Oshika and Wheatley do not explicitly disclose a rank-ordered list of names. However, Hermansen teaches providing a rank-ordered list of names including the known name, with rank-order indicating a likelihood of matching the input name (chapter 2 on pages 14-41). Hermansen teaches generating name

variants based on phonetic, phonetic equivalence or phonic coding, which try to combine similar sounding consonant teaching articulatory (section 2.5 on page 23-24, section 2.5.2 on pages 28-30, and chapter 4 on pages 68-83). Hermansen also teaches providing an indication of similarity between the input name and the known name, wherein the input name is the variant based on the phonetic representation (section 2.1 on pages 15-16, section 3.2 on page 46-50, section 3.3 on pages 52-55, and section 3.4 on pages 55-59). Thus, these teach articulatory similarity. Therefore, based on Oshika in view of Wheatley, and further in view of Hermansen, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teachings of Hermansen to the system of Oshika for ranking in order to measure a likelihood of a name matching.

With respect to claim 64, Oshika and Wheatley do not explicitly disclose comparing sonority level. However, Hermansen teaches generating name variants based on phonetic, phonetic equivalence or phonic coding, which try to combine similar sounding consonant teaching sonority (section 2.5 on page 23-24, section 2.5.2 on pages 28-30, and chapter 4 on pages 68-83). Hermansen also teaches providing an indication of similarity between the input name and the known name, wherein the input name is the variant based on the phonetic representation (section 2.1 on pages 15-16, section 3.2 on page 46-50, section 3.3 on pages 52-55, and section 3.4 on pages 55-59). Thus, these teach a sonority level comparing. Hermansen teaches providing a rank-ordered list of names, with rank-order indicating a likelihood of matching the input name (chapter 2 on pages 14-41). Therefore, based on Oshika in view of Wheatley,

and further in view of Hermansen, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teachings of Hermansen to the system of Oshika for a sonority level comparing in order to search and measure a likelihood of a name matching effectively.

With respect to claim 65, Oshika and Wheatley do not explicitly disclose a morphological element. However, Hermansen teaches determining whether the known name includes a morphological element and providing a rank-ordered list of names, with rank-order indicating a likelihood of matching the input name (chapter 2 on pages 14-41, chapter 4 on pages 68-83, chapter 5 on pages 84-110, and chapter 6 on pages 111-137). Therefore, based on Oshika in view of Wheatley, and further in view of Hermansen, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teachings of Hermansen to the system of Oshika for a morphological comparing in order to search and measure a likelihood of a name matching effectively.

With respect to claim 66, Oshika and Wheatley do not explicitly disclose a rank-ordered list of names. However, Hermansen teaches comparing, for at least one of the multiple phonetic representations of the portion of the input name, an initial sound of the at least one of the multiple phonetic representations of the portion of the input name and an initial sound of the phonetic representation of the portion of the known name and providing a rank-ordered list of names including the known name, with rank-order indicating a likelihood of matching the input name (chapter 2 on pages 14-41, chapter 4 on pages 68-83, chapter 5 on pages 84-110, and chapter 6 on pages 111-137).

Therefore, based on Oshika in view of Wheatley, and further in view of Hermansen, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teachings of Hermansen to the system of Oshika for a ranking in order to search and measure a likelihood of a name matching effectively.

With respect to claims 67-68, Oshika and Wheatley do not explicitly disclose comparing syllabic structure. However, Hermansen teaches comparing, for at least one of the multiple phonetic representations of the portion of the input name, syllabic structure of the at least one of the multiple phonetic representations of the portion of the input name and the phonetic representation of the portion of the known name and providing a rank-ordered list of names including the known name, with rank-order indicating a likelihood of matching the input name (chapter 2 on pages 14-41, chapter 4 on pages 68-83, chapter 5 on pages 84-110, and chapter 6 on pages 111-137). Therefore, based on Oshika in view of Wheatley, and further in view of Hermansen, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teachings of Hermansen to the system of Oshika for comparing syllabic structure in order to search and measure a likelihood of a name matching effectively.

With respect to claim 69, Oshika and Wheatley do not explicitly disclose comparing location of stress. However, Hermansen teaches comparing, for at least one of the multiple phonetic representations of the portion of the input name, location of stress in the at least one of the multiple phonetic representations of the portion of the input name and the phonetic representation of the portion of the known name and

providing a rank-ordered list of names including the known name, with rank-order

indicating a likelihood of matching the input name (chapter 2 on pages 14-41, chapter 4

on pages 68-83, chapter 5 on pages 84-110, and chapter 6 on pages 111-137).

Therefore, based on Oshika in view of Wheatley, and further in view of Hermansen, it

would have been obvious to one having ordinary skill in the art at the time the invention

was made to utilize the teachings of Hermansen to the system of Oshika for a location

of stress in order to search and measure a likelihood of a name matching effectively.

With respect to claim 70, Oshika and Wheatley do not explicitly disclose

orthographic similarity. However, Hermansen teaches comparing, for at least one of the

multiple phonetic representations of the portion of the input name, orthographic

similarity between the at least one of the multiple phonetic representations of the portion

of the input name and the phonetic representation of the portion of the known name and

providing a rank-ordered list of names including the known name, with rank-order

indicating a likelihood of matching the input name (chapter 2 on pages 14-41, chapter 4

on pages 68-83, chapter 5 on pages 84-110, and chapter 6 on pages 111-137).

Therefore, based on Oshika in view of Wheatley, and further in view of Hermansen, it

would have been obvious to one having ordinary skill in the art at the time the invention

was made to utilize the teachings of Hermansen to the system of Oshika for

orthographic similarity in order to search and measure a likelihood of a name matching

effectively.

With respect to claim 71, Oshika and Wheatley do not explicitly disclose

comparing includes discounting. However, Hermansen teaches comparing each of the

multiple phonetic representations of the portion of the input name to the phonetic

representation of the portion of the known name comprises discounting, for at least one

of the multiple phonetic representations of the portion of the input name, an occurrence

of a likely articulatory variation between the at least one of the multiple phonetic

representation of the portion of the input name and the phonetic representation of the

portion of the known name (chapter 3 on pages 42-67, chapter 4 on pages 68-83, and

chapter 6 on pages 111-137). Therefore, based on Oshika in view of Wheatley, and

further in view of Hermansen, it would have been obvious to one having ordinary skill in

the art at the time the invention was made to utilize the teachings of Hermansen to the

system of Oshika for comparing includes discounting in order to search and measure a

likelihood of a name matching effectively.

With respect to claims 72-75, Oshika and Wheatley do not explicitly disclose a

particle in the input name. However, Hermansen teaches identifying a particle in the

input name and attributing less significance to the particle, than to another part of the

input name, in providing the indication of whether the input name matches the known

name, wherein the particle comprises an affix. Hermansen also teaches deciding not to

determine and compare a phonetic representation of the particle attributed less

significance for faster search processing (chapter 3 on pages 42-67, chapter 4 on pages

68-83, chapter 5 on pages 84-110, and chapter 6 on pages 111-137). Therefore, based

on Oshika in view of Wheatley, and further in view of Hermansen, it would have been

obvious to one having ordinary skill in the art at the time the invention was made to

utilize the teachings of Hermansen to the system of Oshika for a particle in the input

name in order to search and match names effectively.

The limitations of claims 81-83 are rejected in the analysis of claims 35-37

above, and these claims are rejected on that basis.

The limitations of claim 87 are rejected in the analysis of claim 41 above, and the

claim is rejected on that basis.

The limitations of claims 90-91 are rejected in the analysis of claims 53-54

above, and these claims are rejected on that basis.

The limitations of claims 92-94 are rejected in the analysis of claims 60-62

above, and these claims are rejected on that basis.

Allowable Subject Matter

8.   Claims 38-40, 55-56, 59, and 84-86 are objected to as being dependent upon a

rejected base claim, but would be allowable if rewritten in independent form including all

of the limitations of the base claim and any intervening claims.

Claim 38 identifies the distinct feature, determining articulatory similarity between

at least one of the multiple phonetic representations of the portion of the input name and

the phonetic representation of the portion of the known name comprises determining,

for the at least one of the multiple phonetic representations of the portion of the input

name, how many phonetic features are in common between corresponding portions of

the at least one phonetic representation of the portion of the input name and the

phonetic representation of the portion of the known name. The closest prior art, Oshika

et al. ("Improved Retrieval Of Foreign Names From Large Database", 1988, IEEE,

pages 480-487) and Hermansen ("Automatic Name Searching in Large Data Bases of

International Names," 1985) disclosing a proper name matching/searching based on a

culture of the proper name, fails to suggest the claimed limitation as mentioned above in

combination with other claimed elements.

Claims 39 and 40, further depending from claim 38, are objected with the same

reason above.

Claim 55 identifies the distinct feature, the first part further relates to both an

initial phonologic element and a final phonologic element of the left-most syllable of the

portion of the input name, and the second part further relates to an initial phonologic

element and a final phonologic element of the left-most syllable of the portion of the

known name. The closest prior art, Oshika et al. ("Improved Retrieval Of Foreign

Names From Large Database", 1988, IEEE, pages 480-487) and Hermansen

("Automatic Name Searching in Large Data Bases of International Names," 1985)

disclosing a proper name matching/searching based on a culture of the proper name,

fails to suggest the claimed limitation as mentioned above in combination with other

claimed elements.

Claim 56, further depending from claim 55, is objected with the same reason

above.

Claim 59 identifies the distinct feature, parts that correspond at the phonologic

level includes (i) a first part that relates to a final phoneme of the portion of the input

name and (ii) a second part that relates to a final phoneme of the portion of the known

name. The closest prior art, Oshika et al. ("Improved Retrieval Of Foreign Names From Large Database", 1988, IEEE, pages 480-487) and Hermansen ("Automatic Name Searching in Large Data Bases of International Names," 1985) disclosing a proper name matching/searching based on a culture of the proper name, fails to suggest the claimed limitation as mentioned above in combination with other claimed elements.

Claim 84 identifies the distinct feature, determining articulatory similarity between at least one of the multiple phonetic representations of the portion of the input name and the phonetic representation of the portion of the known name comprises determining, for the at least one of the multiple phonetic representations of the portion of the input name, how many phonetic features are in common between corresponding portions of the at least one phonetic representation of the portion of the input name and the phonetic representation of the portion of the known name. The closest prior art, Oshika et al. ("Improved Retrieval Of Foreign Names From Large Database", 1988, IEEE, pages 480-487) and Hermansen ("Automatic Name Searching in Large Data Bases of International Names," 1985) disclosing a proper name matching/searching based on a culture of the proper name, fails to suggest the claimed limitation as mentioned above in combination with other claimed elements.

Claims 85 and 86, further depending from claim 84, are also objected with the same reason above.

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Joon H. Hwang whose telephone number is 571-272-

4036. The examiner can normally be reached on 9:30-6:00(M~F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, JOHN E BREENE can be reached on 571-272-4107. The fax phone

number for the organization where this application or proceeding is assigned is 703-

872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Joon Hwang
Patent Examiner
Technology Center 2100

JEAN M. CORRIELUS
PRIMARY EXAMINER

5/13/05